



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

sn

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/732,828	12/08/2000	Jari Mannernmaa	460-009988-US(PAR)	3561

7590 03/29/2005

Clarence A. Green
Perman & Green, LLP
425 Post Road
Fairfield, CT 06430

EXAMINER

BURD, KEVIN MICHAEL

ART UNIT	PAPER NUMBER
----------	--------------

2631

DATE MAILED: 03/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/732,828

Applicant(s)

MANNERMAA, JARI

Examiner

Kevin M. Burd

Art Unit

2631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 8/25/2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 9-16, 18, 19, 22-25 and 29-31 is/are rejected.
- 7) ☒ Claim(s) 6-8, 17, 21, 26-28 and 32 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/00:5/01:8/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Information Disclosure Statement

2. The information disclosure statements (IDS) submitted on 12/08/2000; 5/7/2001 and 8/26/2003 are being considered by the examiner.
3. The information disclosure statement filed 8/25/2003 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Specification

4. The abstract of the disclosure is objected to because "fig 1" must be deleted from line 30 and the abstract is too long. Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

5. The disclosure is objected to because of the following informalities: on page 4, lines 26-34, the sentence is confusing. The sentence states, "In the main, the receiver presented in this specification comprises...". It is not know what "in the main" is referencing. On page 11, line 9, reference is made to FFT1 and FFT2 instead of FHT. This also occurs on page 16, line 1.

Appropriate correction is required.

Claim Objections

6. Claims 6-8, 17, 21, 26-28 and 32 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim can not depend on another multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-5, 9-16, 18, 19, 22-25 and 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blanchard et al (US 5,764,690) in view of Shen et al (US 6,463,043) and Freed (US 5,686,683).

Regarding claims 1, 9-14, 22 and 29-31, Blanchard discloses a method and apparatus for synchronizing a CDMA receiver (column 1, lines 10-17). The signal is correlated and a FFT block 124 generates transforms on the basis of the received signal (figure 9 and column 11, lines 6-13). Multiplier 130 multiplies the output of multiplier 126 and the sequence is correlated 9column 11, lines 26-38). The output of the multiplier 130 is provided to inverse FFT (IFFT) block 132 for calculating the IFFT thereof (column 11, lines 52-62). The signal is acquired as a result and is demodulated (figures 1 and 9).

Blanchard does not disclose the use of Hartley transforms. Shen discloses those of ordinary skill in the art at the time of the invention that other known transforms may be used instead of the Fast Hadamard Transform (a type of Discrete Fourier Transform), such as Fast Hartley Transform (column 3, lines 55-59). It would have been obvious for one of ordinary skill in the art at the time of the invention to use a Fast Hartley Transform of Shen in the CDMA system of Blanchard. Freed discloses one of the inherent advantages of the Hartley Transforms in column 4, lines 6-10. Freed states "Other transforms besides the Fourier transform may be used to advantage. For example, use of the Hartley transform produces comparable results but produces a more regular structure that may lend itself to greater machine efficiency." Freed also states the Hartley transform is computed at approximately twice the speed of the Fourier transform in the abstract.

Regarding claims 2-5, 15, 16, 18, 19 and 23-25, figure 1 shows the multiple demodulators for demodulating a number of channels, each channel having a different frequency (figure 1). Correlation information is stored (column 7, lines 15-19).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin M. Burd whose telephone number is (571) 272-3008. The examiner can normally be reached on Monday - Thursday 9 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kevin M. Burd
3/18/2005

**KEVIN BURD
PRIMARY EXAMINER**